



Massachusetts Department of Environmental Protection  
Bureau of Waste Prevention – Air Quality – NOx Allowance Trading Program

# **BWP AQ 23 Prescribed or Alternative Plan**

# **BWP AQ 24 Physical or Operational Plan**

## **Instructions and Supporting Materials**

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### Introduction

DEP *Permit Applications*, as well as *Instructions & Support Materials*, are available for download from the DEP Web site at [www.state.ma.us/dep](http://www.state.ma.us/dep) in two file formats: Microsoft Word and Adobe Acrobat PDF. Either format allows documents to be printed.

*Instructions & Support Materials* files in Microsoft Word format contain a series of documents that provide guidance on how to prepare a permit application. Although we recommend that you print out the entire package, you may choose to print specific documents by selecting the appropriate page numbers for printing.

*Permit Applications* in Microsoft Word format must be downloaded separately. Users with Microsoft Word 97 or later may complete these forms electronically.

Permitting packages in Adobe Acrobat PDF format combine *Permit Applications* and *Instructions & Support Materials* in a single document. Adobe Acrobat PDF files may only be viewed and printed without alteration. *Permit Applications* in this format may not be completed electronically.



Massachusetts Department of Environmental Protection  
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# **BWP AQ 23 Prescribed or Alternative Plan**

# **BWP AQ 24 Physical or Operational Plan**

## **Permit Fact Sheet**

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**1. What is the purpose of the Emission Control Plan (ECP)?**

The MA DEP regulation 310 CMR 7.28 implementing the NOx Allowance Trading Program requires all affected units to determine NOx mass emissions from certified systems during the ozone season (May – September), beginning on May 1, 2002. To ensure that the NOx mass emissions are determined on a consistent basis, 310 CMR 7.28 requires submission of a monitoring plan, and, for most measurement methodologies, certification test data for NOx Allowance Trading Program certification. The MA DEP, in consultation with the US EPA, is responsible for approving the certification testing of all continuous emissions monitoring systems (CEMS) and fuel flow meter systems, as well as any alternative monitoring systems.

**2. Who must apply?**

All facilities subject to 310 CMR 7.28 must apply for the Emission Control Plan.

**3. Which of the two plan categories should I apply under?**

The ECP categories are AQ 23 and AQ 24. AQ 23 is intended for a facility with units that follow a 40 CFR Part 75 prescribed monitoring system methodology or for which an alternative monitoring system under 310 CMR 7.28(11)(a)3 is proposed. A proposed alternative monitoring system may involve a system that uses an indirect monitoring approach such as parametric monitoring to quantify emission values or direct monitoring which measures emissions using probes or other devices. It may entail a Part 75 subpart E procedural demonstration or a comparable demonstration that ensures equivalent mass emissions measurement precision and data reliability. A proposed heat input monitoring system may also be considered an alternative system when it entails a methodology and/or procedures for fuel sampling, fuel usage measurements, and performance specifications that are not prescribed in the EPA Monitoring regulations. AQ 24 is intended for a facility that makes physical or operational modifications to combustion equipment or plans to install NOx controls.

**4. How does the two-phase structure of the plan work?**

DEP has developed a two-phase ECP structure. The two-phase structure is designed to provide NOx Allowance facilities an organized approach to prepare emission control plans. Phase I of the application process is the submittal of a monitoring plan. This phase of the application process will require detailed information on the monitoring systems. Submittal of the monitoring plan is due by November 1, 2001. Phase II of the application process includes submittal of the certification test data for the monitoring system. Note: See Question 8 below for Phase II deadlines.

**5. How do I submit a complete plan application?**

For a complete Phase I application, you must submit the DEP Transmittal form, the BWP AQ 23 and 24 Application form, and all applicable additional requirements stated in Section C of the Application form. As there is no application fee for 310 CMR 7.28, do not check a box in section F of the DEP Transmittal form. As required by 310 CMR 7.28(11) and 40 CFR 75.62, the monitoring plan must include the information specified in 40 CFR 75.53. All hardcopy portions of the Phase I submittal should be sent according to the information provided in Question 10 below. The electronic copy of the monitoring plan should be submitted to DEP via e-mail (Sharon.Weber@state.ma.us for NERO and SERO facilities, Sue.Ann.Richardson@state.ma.us for CERO and WERO facilities) and also to EPA via e-mail at MP-Reg1@epa.gov. Completion of Phase II will require the submittal of certification test results in accordance with Questions 7 and 8 below. You do not need to submit information for Phase II with the Phase I application, however, if you have already completed



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testing under 310 CMR 7.28 at the time of Phase I submittal, you may submit the requirements for Phase I and Phase II together.

**6. How do I complete the electronic monitoring plan?**

The electronic monitoring plan must be completed in accordance with EPA's most current Electronic Data Reporting (EDR) reporting instructions. At the time this text was created, EPA's Revised EDR Version 2.1 Reporting Instructions, dated 1/24/2001, were the most recent. The plan can be created using EPA's Monitoring Data Checking (MDC) Software. This software can also be used to determine errors in the plan using the Evaluation Report option. This allows the applicant to make corrections to the monitoring plan before it is submitted. EPA's current EDR reporting instructions and the MDC Software can be found on EPA's Clean Air Markets Division (CAMD) web site, [www.epa.gov/airmarkets](http://www.epa.gov/airmarkets).

**7. What other information should be considered when applying?**

All units must submit Net Output Monitoring documentation with their Phase I application. For an existing Acid Rain unit, this should be the only item submitted with the ECP application. The requirements for Net Output Monitoring were distributed as Attachment A of a DEP letter, dated November 20, 2000, that went out to all facilities via e-mail. If you need a copy of this Attachment please visit the DEP web site listed below. For facilities that intend to petition for a variance from standard monitoring, approval of the ECP cannot be completed until the EPA and DEP, in consultation, approve the petition. Therefore, petitions should be submitted to the EPA and DEP as soon as possible. The requirements for the Phase II application include gas/oil meter certification documentation and certification test results that meet the requirements of 40 CFR Part 75. Certification test notification, protocol and application requirements can be found on the DEP web site at [www.state.ma.us/dep/bwp/daqc/daqcpubs.htm#nox](http://www.state.ma.us/dep/bwp/daqc/daqcpubs.htm#nox).

**8. What are the application fees and deadlines?**

There are no fees associated with these applications. The deadline for Phase I submittals for existing budget units is November 1, 2001. Please note that all data from May 1, 2001 on must be reported in EDR version 2.1. New units must submit a Phase I application at least 18 months before the later of May 1, 2003 or the date on which the unit commences operation. For units that commence operation before January 1, 2002, all Phase II certification tests must be completed by May 1, 2002. New budget units which commence operation on or after January 1, 2002 must complete all Phase II tests by the later of the following dates: May 1, 2002 or, the earlier of 180 days after the date the unit commences operation or 90 days after the date the unit commences commercial operation. The results of the Phase II tests must be submitted within 45 days of the date of completion of the last test. Please note that a RATA that meets the standards of Part 75 must be completed on all subject units by May 1, 2002. Ongoing quality assurance RATA results must be submitted within 45 days of completion of the RATA in accordance with 40 CFR Part 75.73(d)(4).

**9. What are the timelines?**

Neither BWP AQ23 nor BWP AQ24 are subject to 310 CMR 4.00 and therefore are not subject to fees and timelines established under that regulation.



# **BWP AQ 23 Prescribed or Alternative Plan BWP AQ 24 Physical or Operational Plan Permit Fact Sheet**

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## **10. What is the Primary Permit Location? What is the Reserve Copy Location?**

**Primary Permit Location:**

Department of Environmental Protection  
Air Quality Section  
\_\_\_\_\_ \* Regional Office

\*See the list of address for DEP regional offices and  
the communities they serve

**Reserve Copy Location:**

Department of Environmental Protection  
Air Assessment Branch  
Source Monitoring Section  
37 Shattuck Street  
Lawrence, MA 01843-1398

## **11. What is the annual compliance fee?**

There is no annual compliance fee specifically for this program.

## **12. What are the regulations that apply to these permits? Where can I get copies?**

These regulations include, but are not limited to:

Massachusetts Air Quality Regulations, 310 CMR 7.00.

These may be purchased at:

State Bookstore (in State House)  
Room 116  
Boston, MA 02133  
617-727-2834

State House West Bookstore  
436 Dwight Street, Room 102  
Springfield, MA 01103  
413-784-1376

The unofficial version of these regulations may also be obtained through the Department web site.

Federal Regulations:

Continuous Emission Monitoring Regulations, 40 CFR Part 75.

These may be purchased at:

U.S. Government Bookstore  
Thomas P. O'Neill Building  
Room 169  
10 Causeway Street  
Boston, MA 02222  
617-720-4180

The unofficial version of these regulations may be obtained through the federal government web site.



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# **BWP AQ 23 Prescribed or Alternative Plan BWP AQ 24 Physical or Operational Plan Application Completeness Checklist**

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- ☐ The DEP Transmittal Form has been completed.
- ☐ All questions on the Application Form have been answered.
- ☐ The Authorized Account Representative (AAR), or the Alternate AAR, has signed Section B.
- ☐ All hardcopy information required in Section C has been included in the application package.
- ☐ Three copies have been made of all of the required hardcopy application materials.
- ☐ The electronic portion of the monitoring plan has been completed in accordance with EPA's current EDR reporting instructions. The Evaluation Report option of EPA's MDC software has been used to check the plan for errors and any necessary corrections have been made before submittal.
- ☐ Optional: The Phase II Certification Test Results may be submitted with the Phase I application information, if desired.

To submit the application package:

- ☐ Submit the electronic portion of the monitoring plan to DEP by e-mail to: Sharon.Weber@state.ma.us (NERO and SERO sites) or Sue.Ann.Richardson@state.ma.us (CERO and WERO sites), and also to the EPA by e-mail at MP-Reg1@epa.gov.
- ☐ Submit one copy of the Transmittal Form as instructed but without a check. There is no fee associated with this application. Do not check any of the boxes in Section F of the form.
- ☐ Submit all hardcopy application materials along with one copy of the Transmittal Form to:  
  
Department of Environmental Protection  
\_\_\_\_\_ \* Regional Office  
Air Quality Control

\*See "DEP Addresses and Phone Numbers" for the addresses of DEP Regional Offices.

- ☐ Submit a copy of all hardcopy application materials to:

Department of Environmental Protection  
Air Assessment Branch - Source Monitoring  
37 Shattuck Street  
Lawrence, MA 01843-1398

- ☐ Submit a copy of all hardcopy application materials to:

US EPA Region 1  
1 Congress Street  
Suite 1100 (CAP)  
Boston, MA 02114-2023



## Massachusetts Department of Environmental Protection

# Addresses and Phone Numbers

DEP Boston  
One Winter Street  
Boston, MA 02108  
Telephone: (617) 292-5500  
Fax: (617) 556-1049  
TDD: (617) 574-6868

William X. Wall Experiment Station  
37 Shattuck Street  
Lawrence, MA 01843  
Fax: (978) 688-0352  
**Division of Environmental Analysis**  
Telephone: (978) 682-5237  
**Air Quality Surveillance**  
Telephone: (978) 975-1138

Office of Watershed  
Management  
627 Main Street  
Worcester, MA 01608  
Telephone: (508) 792-7470  
Fax: (508) 839-3469

Millbury Training Center  
Route 20 Millbury, MA 01527  
Telephone: (508) 368-5600  
Fax: (508) 755-9253  
**Residuals Sludge Management**  
Telephone: (508) 368-5606  
**WWT Operator Certification**  
Telephone: (508) 368-5698

DEP Western Region  
436 Dwight Street  
Suite 402  
Springfield, MA 01103  
Phone: (413) 784-1100  
Fax: (413) 784-1149



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Agawam  
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Colrain  
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Easthampton  
East Longmeadow  
Egremont  
Erving  
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Goshen  
Granby  
Granville  
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Montague  
Monterey  
Montgomery  
Monson  
Mount Washington  
New Ashford  
New Marlborough  
New Salem  
North Adams  
Northampton  
Northfield  
Orange  
Otis  
Palmer  
Pelham  
Peru

Pittsfield  
Plainfield  
Richmond  
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Savoy  
Sheffield  
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Shutesbury  
Southampton  
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Washington  
Wendell  
Westfield  
Westhampton  
West Springfield  
West Stockbridge  
Whately  
Wilbraham  
Williamsburg  
Williamstown  
Windsor  
Worthington

DEP Central Region  
627 Main Street  
Worcester, MA 01608  
Phone: (508) 792-7650  
Fax: (508) 792-7621  
TDD: (508) 767-2788



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Petersham  
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Princeton  
Royalston

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Shrewsbury  
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Tyngsborough  
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DEP Southeast Region  
20 Riverside Drive  
Lakeville, MA 02347  
Phone: (508) 946-2700  
Fax: (508) 947-6557  
TDD: (508) 946-2795



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Stoughton  
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Truro  
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West Tisbury  
Whitman  
Wrentham  
Yarmouth

DEP Northeast Region  
205 Lowell Street  
Wilmington, MA 01887  
Phone: (978) 661-7600  
Fax: (978) 661-7615  
TDD: (978) 661-7679



Amesbury  
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Carlisle

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Chelsea  
Cohasset  
Concord  
Danvers  
Dedham  
Dover  
Dracut  
Essex  
Everett  
Framingham  
Georgetown  
Gloucester  
Groveland  
Hamilton  
Haverhill

Hingham  
Holbrook  
Hull  
Ipswich  
Lawrence  
Lexington  
Lincoln  
Lowell  
Lynn  
Lynnfield  
Malden  
Manchester-By-The-Sea  
Marblehead  
Medfield  
Medford  
Melrose

Merrimac  
Methuen  
Middleton  
Millis  
Milton  
Nahant  
Natick  
Needham  
Newbury  
Newburyport  
Newton  
Norfolk  
North Andover  
North Reading  
Norwood  
Peabody

Quincy  
Randolph  
Reading  
Revere  
Rockport  
Rowley  
Salem  
Salisbury  
Saugus  
Sherborn  
Somerville  
Stoneham  
Sudbury  
Swampscott  
Tewksbury  
Topsfield

Wakefield  
Walpole  
Waltham  
Watertown  
Wayland  
Wellesley  
Wenham  
West Newbury  
Weston  
Westwood  
Weymouth  
Wilmington  
Winchester  
Winthrop  
Woburn



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## BWP AQ 23 - Prescribed or Alternative Methodologies

## BWP AQ 24 - Physical or Operational Plans

### Emissions Control Plan

Transmittal Number \_\_\_\_\_

Facility ID# (if known) \_\_\_\_\_

**Important:**  
When filling out  
forms on the  
computer, use  
only the tab key  
to move your  
cursor - do not  
use the return  
key.



### A. Facility Information

#### 1. Facility

Name \_\_\_\_\_

Street Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Zip Code \_\_\_\_\_

#### 2. Facility Contact Person

Name \_\_\_\_\_

Title \_\_\_\_\_

Telephone Number \_\_\_\_\_

Email Address \_\_\_\_\_

#### 3. Facility Owner

Owner or Corporation Name \_\_\_\_\_

Telephone Number \_\_\_\_\_

Email Address \_\_\_\_\_

#### 4. Which Permit Category are you applying for?

☐ BWP AQ 23

☐ BWP AQ 24

### B. Certification

This form must be signed by the Authorized Account Representative or the Alternative Authorized Account Representative for the facility.

"I certify that I have personally examined and am familiar with the information contained in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment."

\_\_\_\_\_  
Name of AAR or AAAR

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date



## BWP AQ 23 - Prescribed or Alternative Methodologies

## BWP AQ 24 - Physical or Operational Plans

### Emissions Control Plan

Transmittal Number

Facility ID# (if known)

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### C. Additional Items

In addition to completion of this form, the following items must be included, where applicable, to satisfy the requirements of a complete application.

All BWP AQ 23 and 24 submittals must include:

☐ Electronic Portion of the Monitoring Plan

This can be created using EPA's Monitoring Data Checking Software. It must be completed in accordance with EPA's current EDR reporting instructions. This should be submitted via e-mail to DEP and EPA at the same time that the hardcopy portions of the application are submitted.

☐ Narrative Portion of the Monitoring Plan

Text describing, at a minimum, the facility, emissions units, stacks, fuels fired, types of emission controls, monitoring components, monitor site locations, hardware and software component features, hardware components that perform emission calculations, and data flow from output signals of CEMS to final reports, in accordance with 40 CFR 75.53. Include an explanation of any methods and formulas used to determine values such as Maximum Potential Concentration (MPC), Maximum Expected Concentration (MEC), Maximum Potential Flow (MPF), Maximum Emission Rate (MER), span, range, defaults, apportionment strategies, maximum hourly heat input, and any changes from the most recent monitoring plan approved by DEP. In addition, gas-fired and oil-fired units must submit information required under 40 CFR 75.53(f), where applicable.

☐ Schematic Diagrams

A Stack and Flue Gas Monitoring System Diagram completed in accordance with 40 CFR 75.53(e)(2)(iv) and (v), a Data Flow Diagram documenting the flow of data from the source of the data to the final reports in accordance with 75.53(e)(2)(iii), and a Gas and Oil Fuel Diagram completed in accordance with 40 CFR 75.53(f), if applicable.

☐ Net Output Monitoring Documentation

Must be completed in accordance with Attachment A of a DEP letter, dated November 20, 2000 that went out to all facilities via e-mail.

☐ Gas and Oil Flowmeter Accuracy Documentation (if applicable)

Gas-fired and oil-fired units whose fuel flowmeter is not used for commercial billing must submit a description of the 40 CFR Part 75 Appendix D procedure that will be used to certify the flowmeter accuracy of 2%. Describe how and where the test will be performed, who will perform it and which method is being used.





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## **BWP AQ 23 - Prescribed or Alternative Methodologies**

## **BWP AQ 24 - Physical or Operational Plans**

Emissions Control Plan

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Transmittal Number

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Facility ID# (if known)

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### **C. Additional Items (cont.)**

- ☐ Low Mass Emitter (LME) Applicability Demonstration (if applicable)

Submit historical calculated and/or projected NOx mass emissions data in accordance with 40 CFR 75.19(a) demonstrating that the unit qualifies as a LME.

- ☐ Petitions for Alternative Monitoring (if applicable)

Copies of all petition requests submitted to EPA and DEP, and EPA approval letters, if received, under 40 CFR 75.70(h).

BWP AQ 24 submittals must also include:

- ☐ Proposed Physical or Operational Changes

Submit, at a minimum, a description of the proposed modifications to combustion equipment or installation of NOx controls that will be made in accordance with this application.